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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,543	11/30/2001	Rae-K. Burns	50277-1774 (OID 2001-090-	1004
29989	7590	06/17/2004	EXAMINER	
HICKMAN PALERMO TRUONG & BECKER, LLP 1600 WILLOW STREET SAN JOSE, CA 95125			CHEN, CHONGSHAN	
			ART UNIT	PAPER NUMBER
			2172	
			DATE MAILED: 06/17/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/006,543

Applicant(s)

BURNS ET AL.

Examiner

Chongshan Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date 2.   | 6) <input type="checkbox"/> Other: ____.                                    |

### DETAILED ACTION

1. Claims 1-40 are pending in this Office Action.

#### *Information Disclosure Statement*

2. The reference cited in the IDS, PTO-1449, Paper No. 2, has been considered.

#### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5 and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayi et al. ("Ayi", Pub. No.: US 2002/0143735) in view of Hart (5,787,428).

As per claim 1, Ayi teaches a method for managing access to data in a database subject to a plurality of label-based security policies, the method comprising the steps of:

receiving, within a database management system, a request for performing an operation set of one or more operations on data in a table of the database (Ayi, page 1, [0006] – [0008]);

determining which policies, of the plurality of label-based policies, apply to the table based on a policy set of one or more policies associated with the table (Ayi, page 1, [0006] – [0008]).

Ayi discloses determining whether to perform an operation/access on a dataset based on the label associated with the dataset (Ayi, page 1, [0006]). Ayi does not explicitly disclose

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whether to perform the operation on a row of the table. Hart teaches determining whether to perform the operation on a row of the table based on a set of labels associated with the row (Hart, Fig. 4-8, col. 6, lines 5-19). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine whether to perform the operation on a row of the table based on a set of labels associated with the row in the system of Ayi because different row in the table might have different security level. They require different label and different access control.

As per claim 2, Ayi and Hart teach all the claimed subject matters as discussed in claim 1, and further teach adding a policy column to the table for each policy in the policy set associated with the table (Hart, Fig. 4).

As per claim 3, Ayi and Hart teach all the claimed subject matters as discussed in claim 2, and further teach storing a label, of the set of labels associated with the row, in a corresponding policy column of the row (Hart, Fig. 4).

As per claim 4, Ayi and Hart teach all the claimed subject matters as discussed in claim 2, and further teach said step of determining which policies apply further comprising the step of determining whether a column is a policy column (Hart, Fig. 4-8, col. 6, lines 5-19).

As per claim 5, Ayi and Hart teach all the claimed subject matters as discussed in claim 1, and further teach the policy set associated with the table includes two or more policies of the plurality of label-based policies (Ayi, page 1, [0006]-[0008], Hart, Fig. 4-8).

Claims 21-25 are rejected on grounds corresponding to the reasons given above for claims 1-5.

5. Claims 6-20 and 26-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayman et al. ("Hayman", 5,859,966).

As per claim 6, Hayman teaches a method for managing access to data in a database based on a database policy set of one or more label-based security policies, the method comprising the steps of:

registering, with a database management system, one or more packages of routines, wherein each package of said one or more packages implements a security model that supports a model set of one or more policies of the database policy set and said each package includes an access mediation routine (Hayman, col. 8, lines 16-45).

associating a policy with data file (Hayman, col. 1, lines 53-67); and

invoking the access mediation routine in the package for determining whether to allow operation on data based on the policy (Hayman, col. 1, line 63 – col. 2, line 8).

Hayman does not explicitly disclose a first policy of a first model set. However, Hayman discloses labels are applied to each object (Hayman, col. 5, lines 25-26). It is obvious that the labels include a first policy of a first model set. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to associate a first policy of a first model set in a first package with a first table within the database system in the system of Hayman in order to control the access to the table.

As per claim 7, Hayman teaches all the claimed subject matters as discussed in claim 6, and further teaches forming said each package of said one or more packages so that the access mediation routine conforms to a specified interface for enforcing a policy in the database management system (Hayman, col. 9, lines 1-13).

As per claim 8, Hayman teaches all the claimed subject matters as discussed in claim 7, and further teaches said each package further comprising including one or more administrative routines for defining a policy for the model set (Hayman, col. 6, lines 45-67).

As per claim 9, Hayman teaches all the claimed subject matters as discussed in claim 8, and further teaches one or more administrative routines for defining a policy further comprising including one or more administrative routines for defining a name for a particular policy; labels for the particular policy; descriptions for the labels; and properties for the labels (Hayman, col. 5, lines 25-39).

As per claim 10, Hayman teaches all the claimed subject matters as discussed in claim 6, and further teaches invoking an administrative routine of the first package for defining the first policy (Hayman, col. 6, lines 45-67).

As per claim 11, Hayman teaches all the claimed subject matters as discussed in claim 10, and further teaches invoking the administrative routine of the first package further comprising providing to the administrative routine of the first package a plurality of parameters including a policy name for the first policy and a plurality of label names for labels of the first policy (Hayman, col. 5, lines 25-39, col. 6, lines 45-67).

As per claim 12, Hayman teaches all the claimed subject matters as discussed in claim 6, and further teaches in response to attempts to operate on data in a row in the table, the step of determining that the first policy applies to the table (Hayman, col. 5, lines 25-39).

As per claim 13, Hayman teaches all the claimed subject matters as discussed in claim 6, and further teaches associating a second policy of a second model set in a second package with a second table within the database system; and invoking the access mediation routine in the second

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package for determining whether to allow operation on data in the second table based on the second policy (Hayman, col. 5, lines 25-60).

As per claim 14, Hayman teaches all the claimed subject matters as discussed in claim 13, except for explicitly disclosing the second model in the second package is the same as the first model in the first package. However, Hayman discloses labels are applied to each object (Hayman, col. 5, lines 25-60). It is obvious that the labels can be the same type of policy or different type of policy and the object can be the same table or different table.

As per claim 15, Hayman teaches all the claimed subject matters as discussed in claim 13, except for explicitly disclosing the second model in the second package is different from the first model in the first package. However, Hayman discloses labels are applied to each object (Hayman, col. 5, lines 25-60). It is obvious that the labels can be the same type of policy or different type of policy and the object can be the same table or different table.

As per claim 16, Hayman teaches all the claimed subject matters as discussed in claim 13, except for explicitly disclosing the second table is the same as the first table. However, Hayman discloses labels are applied to each object (Hayman, col. 5, lines 25-60). It is obvious that the labels can be the same type of policy or different type of policy and the object can be the same table or different table.

As per claim 17, Hayman teaches all the claimed subject matters as discussed in claim 13, except for explicitly disclosing the second table is different from the first table. However, Hayman discloses labels are applied to each object (Hayman, col. 5, lines 25-60). It is obvious that the labels can be the same type of policy or different type of policy and the object can be the same table or different table.

As per claim 18, Hayman teaches all the claimed subject matters as discussed in claim 6, and further teaches invoking the access mediation routine in the first package further comprising providing data indicating the first policy to the access mediation routine (Hayman, col. 5, lines 25-60).

As per claim 19, Hayman teaches all the claimed subject matters as discussed in claim 6, and further teaches the method further comprises the step of determining a set of allowed labels for the first policy for a user of the database management system; said step of invoking the access mediation routine is performed during said step of determining the set of allowed labels; and the user is allowed to operate on the data according to the first policy if the data is associated with a label for the first policy and the label is included in the set of allowed labels for the first policy (Hayman, col. 5, lines 25-60).

As per claim 20, Hayman teaches all the claimed subject matters as discussed in claim 19, and further teaches storing the set of allowed labels in a session cache for a communication session between the database management system and the user (Hayman, col. 8, lines 54-67).

Claims 26-40 are rejected on grounds corresponding to the reasons given above for claims 6-20.



*Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Moran et al. (Pub. No.: US 2003/0088786) disclose grouped access control list actions.

McNabb et al. (6,289,462) disclose trusted compartmentalized computer operating system.

Thomson et al. (5,751,949) disclose data security system and method.

Krueger et al. (4,962,533) disclose data protection for computer systems.

Ussery et al. (Pub. No.: US 2002/0049903) disclose database management systems and methods of operating the same.

Gupta (6,516,315) discloses a method for controlling access to information.

Williams (6,304,973) discloses a multi-level security network system.

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***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chongshan Chen whose telephone number is 703-305-8319. The examiner can normally be reached on Monday - Friday (8:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (703)305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 8, 2004

  
SHAHID ALAM  
PRIMARY EXAMINER